

NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM  
FOR FEDERAL PROPERTIES

(Type all entries - complete applicable sections)

STATE: Virginia
COUNTY: Botetourt
FOR NPS USE ONLY
ENTRY DATE

1. NAME  
COMMON:  
Callie Furnace  
AND/OR HISTORIC:

2. LOCATION  
STREET AND NUMBER:  
1.5 miles north of Glen Wilton on unimproved woods road  
CITY OR TOWN:  
CONGRESSIONAL DISTRICT:  
Sixth; M. Caldwell Butler  
STATE: Virginia CODE 51 COUNTY: Botetourt CODE 23

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input type="checkbox"/> Building <input type="checkbox"/> Site <input type="checkbox"/> Structure <input checked="" type="checkbox"/> Object	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	<input type="checkbox"/> Occupied <input checked="" type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input checked="" type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Comments _____ _____ _____

4. AGENCY  
U.S. Department of Agriculture - Forest Service  
REGIONAL HEADQUARTERS: (If applicable)  
George Washington National Forest  
CITY OR TOWN: Harrisonburg  
STREET AND NUMBER: 210 Federal Building  
STATE: Virginia CODE 51

5. LOCATION OF LEGAL DESCRIPTION  
COURTHOUSE, REGISTRY OF DEEDS, ETC.  
Botetourt County Courthouse  
STREET AND NUMBER:  
CITY OR TOWN: Fincastle  
STATE: Virginia CODE 51

6. REPRESENTATION IN EXISTING SURVEYS  
TITLE OF SURVEY: N/A  
DATE OF SURVEY:  Federal     State     County     Local  
DEPOSITORY FOR SURVEY RECORDS:  
STREET AND NUMBER:  
CITY OR TOWN: STATE: CODE

SEE INSTRUCTIONS

STATE: Virginia  
COUNT: Botetourt  
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**4. National Park Service Certification**

I, hereby certify that this property is:

<input type="checkbox"/>	entered in the National Register	_____	_____
	See continuation sheet.		
<input type="checkbox"/>	determined eligible for the	_____	_____
	National Register		
	See continuation sheet.		
<input type="checkbox"/>	determined not eligible for the	_____	_____
	National Register		
<input type="checkbox"/>	removed from the National Register	_____	_____
<input type="checkbox"/>	other (explain): _____		

\_\_\_\_\_  
Signature of Keeper                      Date of Action

**5. Classification**

<p>Ownership of Property (Check as many boxes as apply)</p> <p><input type="checkbox"/> private</p> <p><input type="checkbox"/> public-local</p> <p><input type="checkbox"/> public-State</p> <p><input checked="" type="checkbox"/> public-Federal</p>	<p>Category of Property (Check only one box)</p> <p><input type="checkbox"/> building(s)</p> <p><input type="checkbox"/> district</p> <p><input type="checkbox"/> site</p> <p><input checked="" type="checkbox"/> structure</p> <p><input type="checkbox"/> object</p>
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Number of Resources within Property  
(Do not include previously listed properties in the count)

Contributing	Noncontributing	
<u>10</u>	_____	buildings
<u>6</u>	_____	sites
<u>16</u>	<u>1</u>	structures
	_____	objects
	<u>1</u>	Total

Number of contributing resources previously listed in the National Register 1

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) The Iron Industry of Virginia, 1620-1920

6. Function or Use

Historic Functions

(Enter categories from instructions)

Industry/Processing/Extraction

Iron Furnace

Current Functions

(Enter categories from instructions)

Recreation and Culture

Interpretive area of George Washington and Jefferson National Forests

7. Description

Architectural Classification

(Enter categories from instructions)

No Style

Materials

(Enter categories from instructions)

foundation: Limestone

walls: Limestone

roof: N/A

other: N/A

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance  
(Enter categories from instructions)

Period of Significance

Architecture

Industry

1873-1884

Significant Dates

1873

1875

1884

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

preliminary determination of individual listing (36 CFR 67) has been requested.

X previously listed in the National Register previously determined eligible by the National Register designated a National Historic Landmark

recorded by Historic American Buildings Survey # recorded by Historic American Engineering Record #

Primary Location of Additional Data

- X State Historic Preservation Office
Other State agency
Federal agency
Local government
University
Other

Name of repository:

10. Geographical Data

Acreage of Property 9

UTM References (Place additional UTM references on a continuation sheet)

Table with 6 columns: Zone, Easting, Northing, Zone, Easting, Northing. Row A: 17, 603625, 4181725, D, blank, blank. Row B: blank, blank, blank, F, blank, blank. Row C: blank, blank, blank, F, blank, blank. Row D: blank, See continuation sheet., blank, blank, blank, blank.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

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**11. Form Prepared By**name/title Heather Crowl; Emlen Myers, Project Archeologistorganization Dames & Moore, Cultural Resource Servicesdate 9-30-96street & number 7101 Wisconsin Avenue, Suite 700  
2215telephone (301) 652-city or town Bethesda state MD zip code 20814

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**Additional Documentation***Submit the following items with the completed form:*

Continuation Sheets

## Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A sketch map for historic districts and properties having large acreage or numerous resources.

## Photographs

Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

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**Property Owner** (Complete this item at the request of the SHPO or FPO.)name George Washington and Jefferson National Forests, USDA Forest Service  
C/O Mike Barberstreet & number 5162 Valley Pointe Parkway telephone (540) 265-  
5100city or town Roanoke state VA zip code 24019-  
3050

United States Department of the Interior  
National Park Service  
NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Callie Furnace  
*name of property*  
Botetourt, Virginia  
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### Description of Historic Resources

Callie Furnace is situated in the mountains in an area of deciduous forest. The furnace is located within the George Washington and Jefferson National Forests. The property includes numerous structures and other evidence of furnace operation.

### Original

The Callie iron furnace complex included the iron furnace and its support facilities, as well as facilities necessary to support the workers and animals who operated the furnace. The original charcoal stack was 33' high, and 8' across the bosh, and included two tuyere arches. It was constructed of dry-laid local stone, with an interior brick-lined chamber. A 6-foot high iron stack protruded from the top of the furnace. The furnace was connected to an embankment to the north by a charging bridge over which iron ore, limestone flux, and charcoal were wheeled and dumped into the central, brick-lined cavity. A casting house where molten iron was formed into pigs and sows by the sand molding process was located on the tap arch side of the furnace. The tub bellows that produced a hot-blast were powered by a waterwheel set close to the stack; water was transported to and from the wheel in a contained race. In 1875 the furnace was converted for coke use. In 1880 the dimensions of the furnace were increased to 43' x 10'.

### Present

Callie Furnace is in good condition. The outer structure of the furnace is basically intact, and includes three arches. The outside stone structure is 30 feet wide. The iron stack is still present on the furnace structure.

The charging deck bridge support is still intact, although the wooden bridge is gone. Two stone retaining walls and terraces support the ramp up to the charging deck bridge. This ramp is rather large, allowing for the use of a narrow gauge railway to transport raw materials up to the level of the charging deck. An area of dumped stone is located near this ramp. The location of the water wheel to power the bellows is evident, although no retaining wall remains. Water was piped in from springs up hill and then drained off in a contained tail race. A large (10' diameter) cistern is located northwest of the furnace and up the mountain side. A slag pile spans acres of land beyond the immediate area of the furnace. A miniature furnace is located northwest of Callie Furnace. This furnace was probably used for experimenting with techniques and materials. Evidence of approximately six supporting structure foundations can be seen on the mountain slopes west of the furnace. An old road leads to Glen Wilton, and a breached earthen dam is located further up the hill northwest of Callie.

Non-contributing power lines separate the slag pile from the rest of the furnace landscape features.

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## History

Callie Furnace was built as a hot-blast charcoal furnace around 1873-1874 for D. S. Cook of Wrightsville, Pennsylvania. It was named after Cook's wife Caroline. By 1876 it was enlarged and converted into a coke furnace. In 1883 the stack was raised an additional five feet, and a tuyere was added. That same year, the addition of a new Player brand stove to produce a hot blast increased the efficiency of the furnace. New advances in iron furnace construction were tried at Callie Furnace; at the same time the old nineteenth century trapezoidal design was retained.

In October 1880 a rail line from the Chesapeake and Ohio Railroad was completed across Rich Patch Mountain to Glen Wilton near Callie Furnace. Also in 1880, the operators of Callie Furnace purchased the Reynolds Homestead, which supplied three varieties of rich ore. Coke and ore were collected in the winter in anticipation of summer blast. Callie Furnace produced mill pig iron, which was transported to mills in Ohio and Pennsylvania. In 1881 the operators were considering building a new furnace to replace Callie. D. S. Cook and Harris Wilton sold their interest in Callie. In 1884 they completed a new coke-furnace called Princess, which was located nearer to raw materials and the railroad at Clifton Forge. Hileman Waring and Co. took over operation of the older furnace, Callie. Callie Furnace was shut down for part of 1881 due to water shortages. In 1882, however, it produced car wheel iron the entire season. In 1883 the furnace was shut down briefly due to an accident on the railroad; the furnace continued to produce iron this year, but almost none of it was sold due. Callie Furnace went out of blast in 1884.

## Significance and Integrity

Callie iron furnace is representative of the continuing importance of the iron industry in Virginia during the late nineteenth century. The furnace reflects the nationwide trends in furnace construction during this time period. It was built in the plan common to the early nineteenth century, but included a hot blast. The furnace was soon altered to use coke rather than charcoal, indicating Virginia's late incorporation of this important material. Modern features of iron extraction were incorporated into the traditional method of furnace construction which Virginia was slow to replace. The activities of Callie Furnace brought money and people into the area. Callie Furnace's attempt to incorporate new techniques and materials in order to compete with northern iron furnaces, and its eventual decline due to competition reflect the Virginia iron industry as a whole.

The potential for archeological investigation is significant at Callie Furnace. Numerous foundations and related features are scattered across the area surrounding the furnace. Research could provide information about workers' living conditions, ethnicity, and economic background. Transportation of raw materials and finished products could be investigated. The furnace and surrounding features would yield information on iron extraction technology, innovation, and change through time. Callie Furnace is in good condition. The area has a high level of integrity and contains information that could contribute to our understanding of the nineteenth century iron industry in Virginia.

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**Bibliography**

Arnold, Melvin

1973 National Register of Historic Places Inventory - Nomination Form.

Capron, John D.

1970 *Callie Furnace, Botetourt County*. Personal Files of John D. Capron. Typescript dated January 5, 1970. Lynchburg College, Virginia.

United States Department of the Interior  
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**Boundaries**

The property of Callie Furnace extends east beyond the slag pile to a dirt road, south to the contained race and the road to Glen Wilton, west beyond the evidence of foundations around the 1600' contour line, and north to the breached dam. It includes the furnace, race, retaining walls, dam, cistern, slag pile and all other foundations and possible features that retain integrity and are likely to contribute information about nineteenth century iron production in Virginia.

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**NPS Form 10-900-a  
(8-86)**

**OMB No. 1024-0018**

**United States Department of the Interior  
National Park Service  
NATIONAL REGISTER OF HISTORIC PLACES  
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